Chapter 6

6.1 Overview

This chapter outlines local measures to increase walking and to promote pedestrian safety. It provides a vision and policy framework for pedestrian travel, clarifying Wake Forest's role in addressing pedestrian issues and meeting pedestrians' needs. Additionally, actions and policies are listed for better integrating pedestrian travel into the transportation system.

In order for the pedestrian network to be most effective, it is important for the necessary policies, programs, ordinances, funding, and staffing infrastructure to be in place to manage, maintain, and promote pedestrian transportation in Wake Forest.

Previous planning efforts have outlined pedestrian goals and needs for Wake Forest. The Land Use Management Plan recommends that a sidewalk plan "be prepared and coordinated with a greenway plan to serve as a comprehensive pedestrian circulation plan." The Wake Forest Transportation Plan recommends adopting pedestrian-friendly standards, policies, and guidelines, having a proactive attitude towards change, placing sidewalks on both sides of thoroughfares and collectors, and coordinating pedestrian improvements with other roadway improvements. Other policy directives from the Land Use Management Plan and Transportation Plan are listed in Section 6.2 along with the specific goals and recommendations of this Pedestrian Transportation Plan. Through these goals, policies, and action items, the Pedestrian Transportation Plan places a greater emphasis on pedestrians in the Town's ongoing work of shaping streets and managing traffic.

This emphasis on pedestrian considerations parallels new policies within the region and state as well. The CAMPO Metropolitan Planning Area Organization) Bicycle and Pedestrian Plan calls for improved pedestrian



Figure 6(a): Historic Royal Mills



Figure 6(b): Photo courtesy of: www.pedbikeimages.org/Dan Burden

connectivity, safety, engineering, education, encouragement, The North Carolina Department of and enforcement. Transportation (NCDOT)'s Board of Transportation Resolution (2000) explains that "bicycling and walking accommodations shall be a routine part of the North Carolina Department of Transportation's planning, design, construction, and operations activities" and that "bicycling and walking [are] a critical part of the state's transportation activities."1

The following programs, policies, and action items, described in sections 6.2 - 6.4, were prepared in consultation with the above-mentioned plans and other documentation including the Wake Forest Parks and Recreation Master Plan, Wake Forest Open Space and Greenway Plan, Master Plan for the 98 Bypass Corridor, and the Renaissance Plan for the Heart of Wake Forest. The Pedestrian Steering Committee also contributed with their visions and ideas which included education/encouragement/ enforcement programs, connectivity, safety, and community strengthening. (Policies relating to implementation are listed in the Implementation Plan chapter.)

Policy Recommendations 6.2

Policy recommendations were derived from local plans and ordinances (described briefly in Section 6.1), Pedestrian Steering Committee input, other City Pedestrian Plans, and community need. Several policy action items were derived or taken directly from the Oakland, CA Pedestrian Master Plan which does an excellent, comprehensive job of recommending general policy categories and specific policies.

6.2.1 Access and Connectivity (AC)

Develop a connected network of pedestrian corridors, both on-road and off-road, prioritizing routes to schools, Downtown, and other trip attractors, that enables pedestrians to travel safely and freely.

General Plan Policies (From local plans and ordinances)

P1. "All town center area streets, collector streets, and thoroughfares in Wake Forest should eventually have sidewalks." (*Transportation Plan*, 5-4)

P2. "Thoroughfares-sidewalks are required on both sides of the street, unless otherwise specified.

Residential Collectors-sidewalks are required on both sides of the street

Non-Residential Collectors-sidewalks are required on both sides of the street unless otherwise specified." (*Transportation Plan*, 5-4)

P3. "Sidewalks shall be included as a part of the construction of all streets included in the thoroughfare plan, collector street plan and other access roads. Sidewalks should link residential areas with employment, commercial and public areas and should interconnect the town greenway plan." (Wake Forest Code of Ordinances, Section 28-39)

P4. "A program of curb ramp installation should be adopted to retrofit existing sidewalks at appropriate locations and make sure that any new sidewalk that is installed meets design standards." (*Transportation Plan*, 5-4)

P5. "Establish a greenway corridor and stream buffer zone for all major streams." "Implement land trails along Smith Creek and Richland Creek." (*Open Space & Greenway Plan*, 4-6).

P6. "The accommodation of pedestrian movement and the development of pedestrian-oriented spaces should be a high priority for the [Downtown] area." (*Land Use Management Plan*, p. 30)

P7. "Link [the] park system with pedestrian ways, sidewalks, or greenways and tie them into the major floodplain/open space system." (Land Use Management Plan, p. 33-34)

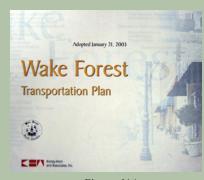
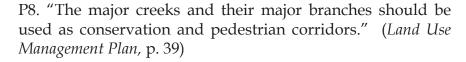


Figure 6(c): Wake Forest Transportation Plan



P9. "Sidewalk or pedestrian ways should be built along all collectors and thoroughfares, along the US-1 service road, and along the 98 Bypass." (Land Use Management Plan, p. 41)

Policy Recommendations and Action Items

Route Network

Create and maintain a pedestrian route network that strengthens neighborhoods by linking places to work, shop, play, and live.

Action AC 1. Building on the Transportation Plan, sidewalks shall be required on both sides of the street along thoroughfares and collectors, on both sides of all streets in multi-family developments, and along both sides of local streets within walking distance of a major pedestrian trip attractor, such as a school, library, shopping center or similar facility. Sidewalks shall be required on one side of all other streets.

Exceptions may be considered on a case-by-case basis. For example, wide multi-purpose trails are to be provided on one side of most of the NC 98 Bypass in lieu of sidewalks on both sides of the street.

Action AC 2. Update the Town's other plans and ordinances for consistency with the above requirements (listed in AC 1). Action AC 3. Provide for connectivity across major thoroughfares such as US-1 and the NC 98 Bypass and railroads. Design underpass pedestrian tunnels and improve existing, potential pedestrian tunnels to enhance connectivity. Plan for pedestrian crossings over or under facilities where at grade crossings are not possible, particularly at Capital Boulevard, NC 98 Bypass, and railroad crossings, and where greenway corridors are identified.

Action AC 4. Develop a system of signage for pedestrian facilities and greenways.



Figure 6(d): *Photo courtesy of:* www.pedbikeimages.org/Dan Burden

Action AC 5. Pave multipurpose trails along greenway corridors as identified in the Open Space and Greenways Plan. These trails are to be designed to fulfill conservation, recreation and transportation goals of the community.

Action AC 6. Maintain the existing walkways to ensure that they are safe and free of debris and vegetation.

Action AC 7. To the maximum extent possible, provide for ADA accessibility.

Action AC 8. In order to achieve east-west connectivity, pedestrian-safe, grade-separated railroad crossings and signage should be considered.

Action AC 9. Coordinate planning efforts with surrounding jurisdictions to provide regional sidewalk and trail connectivity.

Action AC 10. Provide or require developers to provide pedestrian connectivity between developments.

Safe Routes to School

Develop projects and programs to improve pedestrian connectivity and safety around schools.

Action AC 11. All roads within walking distance of schools shall have sidewalks on both sides of the road with crosswalks and pedestrian signals at signalized intersections.

Action AC 12. Prioritize pedestrian improvements near schools.

Action AC 13. Using the Pedestrian Route Network as a base, work with schools to designate, improve, and publicize safe routes to school.

Action AC 14. Work with local school system to help implement a seamless school safety program that coordinates adult crossing guards, student safety patrols, and parent volunteers to ensure that all schools have adequate traffic safety programs.

Action AC 15. Work with schools having inadequate pickup and drop-off facilities to improve these and create a safe automobile-pedestrian environment.



Figure 6(e): Wake Forest Renaissance Plan



Figure 6(f): *Photo courtesy of:* www.pedbikeimages.org/ITE Ped/Bike Council

6.2.2 Safety (S)

Create a street environment that provides safe conditions for pedestrians.

General Plan Policies (From local plans and ordinances)

P10. "Pedestrian crossings should be installed allowing for a safer pedestrian environment." Renaissance Plan for the Heart *of Wake Forest*, p.33)

P11. "The current four lane thoroughfare is hostile to the pedestrian environment. A landscaped median along South Franklin Street will help to tame traffic, improve the pedestrian realm, and enhance the aesthetics of the area." (Renaissance Plan for the Heart of Wake Forest, p.33)

P12. "In general, installing sidewalks along a roadway entails the construction of a strip of concrete 5 feet wide along one or both sides of the street, set back from the back of the curb by a minimum of 5 feet of planted verge or hardscaped area. In areas where pedestrians are expected in greater numbers and around activity centers, it is likely that wider sidewalks will be needed." (Transportation Plan, 5-4)

P13. "No person shall stop, stand or park a vehicle, except when necessary to avoid conflict with other traffic, or in compliance with the directions of a police officer or trafficcontrol device in any of the following places:

- (1) On a sidewalk;
- (2) On a crosswalk;" (Wake Forest Code of Ordinances, Section 30-159)

Policy Recommendations and Action Items

Sidewalk Safety

Strive to maintain a complete sidewalk network free of broken or missing sidewalks, curb cuts, or curb ramps.

Action S 1. Prioritize sidewalk construction where gaps are located in areas with pedestrian traffic. Maintain data on new



sidewalk construction, cost, potential for connectivity and feasibility of filling gaps to provide for the greatest benefit.

Action S 2. Consider property assessments and grantsmanship to fund sidewalk construction in deficient areas that are already developed or where the need for pedestrian connections cannot rely upon the timing of private property development, maintenance and repair.

Action S 3. Provide for pedestrian safety across driveways. Extend concrete sidewalks through the driveway with a maximum two percent slope on the driveway apron.

Action S 4. Create a program to enforce the responsibility of adjacent property owners to add sidewalks to close gaps with new adjacent sidewalk development.

Action S 5. Dedicate revenue for construction of sidewalks. Prioritize projects based on obtaining the greatest connectivity for the funds expended, school routing, ADA compliance and for safety.

Action S 6. Provide pedestrian scale lighting at regular intervals in areas of high pedestrian activity such as Downtown and shopping centers to promote pedestrian safety and discourage criminal activity.

Action S 7. Develop and expand the City's program of ondemand sidewalk repairs. Consider assessment of fees to property owners to provide for sidewalk construction, maintenance and repair.

Action S 8. Connect business entrances to the public sidewalk system.

Action S 9. Require contractors to provide safe, convenient, and accessible pedestrian rights-of-way along construction sites that require sidewalk closure.

Crossing Safety

Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue.

Action S 9. Install marked crosswalks at all intersections.

Action S 10. Consider the full range of design elements – including bulbouts and refuge islands – to improve pedestrian safety.

Action S 11. Update crossing treatment policy guidelines for



Figure 6(g):
Photo courtesy of:
www.pedbikeimages.org/ Michael
Ronkin



Figure 6(h): Wake Forest Open Space and Greenway Plan

all types of crossings based on current federal research (FHWA 2002a, FHWA 2002b). Striping and texture that stands out from roadway should be considered.

Action S 12. Use residential and business densities to establish lower speed limits in areas with a high level of pedestrian activity or a history of pedestrian-involved motor vehicle collisions.

Action S **13.** Ensure that crosswalks are properly lit at night. Action S 14. Analyze the circumstances contributing to pedestrian involved motor vehicle collisions for possible actions or improvements needed to reduce conflicts.

Action S 15. Install detectable warning surfaces at sidewalk and street boundaries.

Traffic Signals

Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections.

Action S 16. Install pedestrian crossing signals at all major intersections and especially at intersection improvement sites denoted in this Plan.

Action S 17. Seek additional funds to pay for the retrofitting of traffic signals with pedestrian signal heads and the maintenance costs that such additions may incur.

Action S 18. Review the signal-timing program to ensure that it incorporates the needs of pedestrians by providing adequate crossing times.

Action S 19. Seek funds to address the backlog of traffic signals with special attention to signals in front of schools, senior centers, and other high-pedestrian activity centers.

Action S **20**. Consider installing audible pedestrian signals at all new and retrofitted traffic signals, especially in Downtown area and near senior centers.

Action S21. Consider using crossing enhancement technologies like countdown pedestrian signals at the highest pedestrian volume locations, especially in the Downtown area.



6.2.3 Community Strengthening (CS)

Provide pedestrian amenities, promote land uses to enhance these public spaces, and promote these features to make Wake Forest a more desirable place to live and a stronger community.

General Plan Policies (From local plans and ordinances)

P14. "Streetscape improvements, sidewalks, and public benches are recommended to encourage visitors to stroll and linger throughout the downtown." (*Renaissance Plan for the Heart of Wake Forest*, p.10)

P15. "The Town should not hesitate to set any standards for development it believes will contribute to the quality of life for its residents." (*Land Use Management Plan*, p.42)

P16. "The collection of buildings in and the pedestrian scale of the [Downtown area] make it one of Wake Forest's strongest assets. It is and can be a destination for residents and visitors alike. Every opportunity to enhance or expand this asset in a manner that is architecturally compatible and pedestrian-oriented will increase the value of this asset." (Land Use Management Plan, p.30)

P17. "Orient place/spatial planning and design to the pedestrian scale. Undertake the establishment of public spaces, primarily intimate in scale, to complement and encourage pedestrian circulation." (*Land Use Management Plan*, p.31)

P18. "Optimize the appreciation, use and stewardship of Wake Forest's historic, cultural and natural resource heritage." & "Develop and maintain parks and greenways using nationally-accepted sustainable design principles and best management practices." (*Parks and Recreation Master Plan*, p.23)

P19. "Develop environmental education and interpretive facilities [along Greenway Corridors]." (*Parks and Recreation Master Plan*, p.24)



Figure 6(i): Smith Creek Greenway

P21. "In general, installing sidewalks along a roadway entails the construction of a strip of concrete 5 feet wide along one or both sides of the street, set back from the back of the curb by a minimum of 5 feet of planted verge or hardscaped area."

P20. "Develop stewardship programs for the greenway

Policy Recommendations and Action Items

system." (Parks and Recreation Master Plan, p.27)

Streetscaping and "Trailscaping"

(*Transportation Plan*, 5-4)

Encourage the inclusion of art, historic, and nature elements along with street furniture, landscaping, and lighting in pedestrian improvement projects.

Action CS 1. Identify pedestrian routes in neighborhood commercial districts and in the downtown to prioritize streetscaping improvements.

Action CS 2. Prioritize the replacement of dead or missing trees.

Action CS 3. Design streetscapes with pedestrian safety as a primary objective. Require street trees and planting buffers between the sidewalk and the street along new roadways wherever possible.

Action CS 4. Include pedestrian-scale lighting in streetscaping projects around Downtown and shopping centers (areas of high pedestrian activity).

Action CS 5. Consider incorporating local artwork into the Pedestrian Route Network, especially along greenways.

Action CS 6. Consider placing signage to identify historic and natural landmarks along the Pedestrian Route Network to enliven the pedestrian experience.

Action CS 7. Encourage and require property owners to keep sidewalks and greenways free of litter and debris. Provide or require street furniture and trash receptacles along high traffic pedestrian routes.



Figure 6(j): Future Smith Creek Greenway tunnel under NC 98 Bypass

Land Use

Promote land uses and site designs that make walking convenient and enjoyable.

Action CS 8. Use building and zoning codes to produce a mixture of uses with entrances and exits connected to the public sidewalk system, pedestrian scale design elements and street level activity.

Action CS 9. Promote parking and development policies that encourage pedestrian access to multiple destinations within an area. Provide for shared parking where possible, require interconnections between parking areas to allow for foot traffic between multiple businesses and provide for safe and convenient pedestrian access to and from parking areas.

Action CS 10. Encourage programs to clean up trash and blighted buildings at the street level. Encourage programs for businesses and business associations to improve streetfronts and overall cleanliness.

Action CS 11. Encourage the inclusion of public walkways or trails in large, private developments.

Action CS **12.** Encourage the development of pocket parks and plazas along the Pedestrian Route Network.

Action CS 13. Parking areas shall be designed to minimize pedestrian and motor vehicle conflicts. The parking areas shall be subordinate to the building to the greatest extent possible to provide for pedestrian interest, convenience and safety.

Action CS 14. Provide or require developers to provide pedestrian connections beyond their development to link nearby trip attractors to adjacent communities.

6.3 Other Policies

6.3.1 Future Pedestrian Facility Development

To ensure that needed pedestrian facilities are constructed, elected leaders should allocate sufficient resources on an annual basis to regularly expand and maintain the pedestrian network. Funding for roadway or bridge reconstruction or replacement must include pedestrian facilities.

Regarding future pedestrian facilities on state roads, it will be



Figure 6(k):
Photo courtesy of:
www.pedbikeimages.org/ ITE
Ped/Bike Council



Figure 6(l): Disconnected sidewalks on Stadium Drive

important to know how NCDOT and CAMPO are involved in the approval process for construction, reconstruction, repaving, and bridge projects on different roads in the Wake Forest area. Since the NCDOT has jurisdiction over the rights-of-way of most thoroughfares and some collectors in Wake Forest, it is important to coordinate pedestrian facility planning with the NCDOT.

The issues could potentially include:

- Bridge culverts/underpasses
- Shoulder regrading and drainage
- Adequate easement acquisition for new pedestrian facilities

Sidewalks should be constructed during the infrastructure development phase of the subdivision (when streets, curbs, gutters and etc. are installed). Installation of the sidewalks at this stage is less expensive due to the economy of scale and provides for pedestrian access from the first occupant rather than with later occupants. If the sidewalk sections are later damaged during construction, the damaged sections will need to be repaired or replaced prior to occupation. Precautions taken during construction could prevent this from occurring. For example, strategically placed access points could be created throughout the construction site, allowing heavy equipment to enter and exit the site without disturbing the pedestrian facilities, or those using them. The downside of such a precaution on behalf of the developer is that it may require extra incentives due to the inefficient use of space it presents for the construction crews on site.

Because it is advised to build sidewalks with other early neighborhood infrastructure development, conflict might occur when constructing the driveway that crosses the Because driveways require a 6" base while sidewalk. sidewalks only require a 4" base, three options should be available to developers. The developer can 1) select driveway locations for each lot to install sidewalks with the required

base across the driveway sections (offering less flexibility in driveway location at the permit stage), 2) replace sidewalk sections to install the required base across the driveway at a location to be selected at a later point in the development (allowing driveway location flexibility at the additional cost of demolition and reconstruction of sidewalk) or 3) install the full length of sidewalk with the required base for a driveway section allowing the maximum flexibility in driveway location at marginally higher initial installation costs.

On a case-by-case basis, the Town can consider allowing sidewalks to be constructed at some later point in time, but should require grading for the ultimate construction of the sidewalk sections.

Sidewalk should be extended across driveway cuts to maintain the continuity of the sidewalk and reinforce to drivers that they should yield to pedestrians as required by law. Also, driveway aprons should not extend through the sidewalk area of the driveway, which must also be constructed at a maximum two percent cross slope.

Finally, local ordinances should be amended to require pedestrian facilities be built as part of a subdivision project to be extended beyond the limits of the subdivision boundaries to connect to nearby trip attractors and developments.

6.3.2 Maintenance

Once the proposed network has been adopted by the Town and efforts to implement the network are underway, focus should be directed towards the maintenance and enhancement of the system. Well maintained and managed facilities are critical elements to the long-term success and accessibility of Wake Forest's pedestrian network. Regular maintenance of the community's pedestrian facilities will be essential to maintain the safety of the facilities and their overall usability. To facilitate the practice of regular maintenance, the Town of Wake Forest should develop a schedule of maintenance



Figure 6(m): Photo courtesy of: www.pedbikeimages.org/Dan Burden

The Public Works Department's maintenance process must provide for complaint based maintenance issues and prevent vegetation from encroaching into walkways as well. Clearances and sight distances should be maintained at driveways and intersections. A regular pruning and maintenance program is advised to remove vegetation litter and debris.

activities for the pedestrian network along with the existing maintenance projects of the NCDOT and Wake Forest's Public

Types of maintenance required include:

- Repair of surface
- Repair of trail

Works Department.

- Restriping of crosswalks/pavement markings
- Replacement or repair of route signs due to damage caused by vandalism or general wear
- Removal of any collected debris (including sand, gravel, trash and vegetation)
- Pruning to keep sight distances and clearances adequate

Figure 6(n): Photo courtesy of: www.pedbikeimages.org/Dan

Many of these maintenance projects are already regularly scheduled along the area's roadways. They now must simply be expanded to include the pedestrian facilities as well. Offroad pedestrian routes may require the attention of separate agencies. Local civic groups could contribute by "adoptinga-trail" and regularly maintain trail segments. The Town should develop a standard pedestrian maintenance schedule for incorporation into the activities of all the appropriate Town agencies. Many of the basic roadway maintenance tasks, such as debris removal, can be combined to reduce the number of hours needed to complete tasks and maximize the use of Town resources.

Finally, it should be the responsibility of the owner or occupant of private property to keep their property and adjacent sidewalk free of litter and debris. Basic cleanliness should be maintained by local residences and businesses. Properlyplaced signage and garbage cans can help encourage clean sidewalks.

6.3.3 Annexation

For areas eligible for annexation under North Carolina's statutes, plans are developed to provide all required municipal services and an estimate for providing such services². If pedestrian facilities are to be included in annexed areas, they should be addressed in the annexation study and should be included in an update of any Town plan that addresses such facilities, such as the Wake Forest Pedestrian Plan.

Services that will require no extensive capital outlay, such as crosswalk striping, could be provided within a short time. With respect to services involving capital outlays, such as greenway trail development or bike/pedestrian bridges, it should be remembered that: (1) extension of improvements should be commensurated with other parts of the Town and should be related to the needs of present settlement and future growth, and (2) extensions should be based on previously approved policies and standards. Therefore, if the Town of Wake Forest is to ensure consistent pedestrian facilities in annexed areas, the first step will be adopting the Wake Forest Pedestrian Plan. Furthermore, residents in the annexed area do not expect to be taxed without benefits, but they should also not expect a disproportionate balance of improvements at the expense of the other residents. Therefore, an annexation ordinance that addresses improvements, such as pedestrian facilities, should take this balance into account when defining the services to be provided.

In some cities, such as Wake Forest and Fayetteville, NC, facilities (such as sidewalks for example) are not something the Town provides as a base service for annexed areas³. The developer is responsible for all public facilities upon development including sidewalks. However, as the area becomes part of the Town, it should be eligible for the same improvements based on future need. These are examples of ways in which Wake Forest has policies in place that apply to



Figure 6(0):
Photo courtesy of:
www.pedbikeimages.org/ Dan
Burden

the Town as a whole, which would immediately include new areas once they are annexed.

6.3.4 Local Ordinances

Local ordinances are another means to develop and encourage safer pedestrian activity throughout Wake Forest which in turn could lead to larger numbers of people walking. There should be an effort to seek out ordinances that may need updating and/or to develop new ordinances that would relate to the new pedestrian network.

Wake Forest currently addresses sidewalks in Section 28 of their Code of Ordinances. Section 28-39 states that "sidewalks shall be included as a part of the construction of all streets included in the thoroughfare plan, collector street plan and other access roads. Sidewalks should link residential areas with employment, commercial and public areas and should interconnect the town greenway plan." It also states that "multifamily and planned developments shall provide sidewalks for interior movement of pedestrians and for the interior to connect to the public sidewalk system." Updates to Section 28 should be considered as described in Section 6.2.1 of this Plan.

The Subdivision Regulations require sidewalks to be constructed on one side of the street for single-family residences on 10,000 sq. ft. lots or smaller, and on both sides of the streets for multi-family groups. The Subdivision Regulations contradict the Transportation Plan by requiring sidewalks on only one side of minor thoroughfares and all residential collector streets. Furthermore, since Municipal Code supersedes Subdivision Regulations, an amendment to the Subdivision Regulations is recommended to remove the 'minor thoroughfare/sidewalk location' conflict. The amendment should call for sidewalks on *both* sides of the street, as stated in the Wake Forest Municipal Code for Sidewalk Location

The Town should also be aware of North Carolina laws relating to walking in *The Guide to North Carolina Bicycle and Pedestrian* Laws. A portion of this booklet discusses local ordinances and the issues sometimes addressed by these ordinances. If issues arise in the Town of Wake Forest, the Town can consider developing ordinances that would be enforced by local police. Common issues are bicycling on sidewalks, greenway use, and headphone usage

6.4 Program Recommendations

Education, encouragement, and enforcement programs should be in place to teach and encourage safety and ensure the success and integrity of Wake Forest's future pedestrian network.

The recommended pedestrian facilities revealed in Chapter 4 will most successfully serve the Town of Wake Forest with continued support for walking, built through programs that focus on education, encouragement, and enforcement. Many of the following programs were suggested by members of the steering committee. Additional resources can be found on the NCDOT Division of Bicycle and Pedestrian Transportation website.

6.4.1 Education

Long term educational strategies should be developed to teach and promote safety. A good education program provides instruction in lawful behavior for pedestrians and motorists. This education should be available to youngsters and adults. This will require support through the Town, citizens, and local groups.

Children are the current and future users of Wake Forest's pedestrian network. Teaching children about walking can foster lifelong habits. Local schools should be used to teach children about pedestrian safety. Instruction programs and events for children should also be available in Wake Forest through the Parks and Recreation Department. The National Safe Routes to School also offers a national course that would

be very beneficial to Wake Forest. Pedestrian instruction for teenagers can be taught in driver's education courses.

Motorists should be taught to respect and work with pedestrians who are sharing their travel corridors. Many do not realize that the law requires that they yield to pedestrians in marked crosswalks for instance.

Instruction programs for adults are more difficult to develop. Events sponsored by the Wake Forest Parks and Recreation Department may provide opportunities for adult education. For example, the Town could hold a Pedestrian Day in the spring for children and adults and offer training classes all summer.

Education may also be provided through various print and electronic media. Safety tips for pedestrians and motorists could appear as a video on a local television channel. A pedestrian brochure could include educational items about proper skills, road crossings, and habits. The Town of Wake Forest website could also provide educational materials.

6.4.2 Encouragement

Encouragement programs should be initiated to help build a larger pedestrian community. Financial incentives, prizes, or public praise can be provided to local businesses or schoolchildren that support walking through their actions. Awards can be created to celebrate advances in the community's pedestrian facilities, pedestrian use, and overall pedestrian friendliness.

There are a variety of means to promote walking. Pedestrian booths could distribute information at local events such as *Downtown After Hours, Meet in the Street* and the *Autumn Arts Festival*. Local businesses and tourist information centers could distribute pedestrian maps and information. Inserts into local newsletters can detail the health benefits of walking. Mileage

clubs could be established and awards given to those who reach their goals. An annual Pedestrian Day could be sponsored by the Wake Forest Parks and Recreation Department with promotions, contests, and education programs. National Trails Day, celebrated nationwide annually in June, could become an annual event along one of Wake Forest's greenways.

Other means to encourage and promote Wake Forest as a walkable community include:

- Publish and distribute a Wake Forest walking guide or walking tour brochure that cover the area's history, safety tips, suggested walking routes, and pedestrian rights and responsibilities.
- Promote neighborhood walks, clean up walks, nature walks and art walks.
- Promote walk-for-health programs with local schools, businesses, and recreation centers.
- Organize walk-to-work and walk-to-school days and weeks.

Wake Forest should also tap into existing national encouragement programs:

 National Walk a Child to School is usually held in October with the objective to encourage adults to teach children practice safe pedestrian behavior, to identify safe routes to school, and to remind everyone of the health benefits of walking. www.walktoschool-usa.org

• Safe Routes to School is a national program with \$612 million dedicated from Congress from 2005 to 2009. Local Safe Routes to School programs are sustained by parents, community leaders, and citizens to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. As of 2006, the North Carolina Safe Routes to School program has \$15 million over five years for infrastructure improvements within two miles of schools. It also offers programs and workshops held at schools that request guidance. There is an application process and schools that hold workshops and programs will be likely candidates for the capital improvement money.

http://www.saferoutesinfo.org/

6.4.3 Enforcement

Enforcement is critical to ensure that proper actions are being taken by both pedestrians and motorists and that the rights of each are recognized. A local law enforcement program for a shared transportation system should be developed for Wake Forest. Appropriate and updated pedestrian traffic laws are an important first step in developing an adequate enforcement program. The most effective pedestrian ordinances distinguish between motorized vehicles and pedestrians and clarify the manner in which each shall lawfully share the roadways. Existing state traffic laws should be reviewed to ensure that appropriate rules and regulations are applied to Wake Forest's pedestrian network. This will result in a meaningful policy of which to enforce.

Effective enforcement efforts require participation by parents, teachers and police officers. Officers should take an active role in enforcement, teaching safety, evaluating traffic concerns, providing a presence, and giving warnings or tickets to those who disobey the law. Examples include speeding, disobeying signs and signals, and walking along the road. Children can benefit from training classes. Law enforcement officers can set examples for citizens.

Local law enforcement should refer to and be competent with the NCDOT's *A Guide to North Carolina Bicycle and Pedestrian Laws*.

6.5 Program and Policy Recommendation Summary

The following are key program and policy recommendations that Wake Forest should examine and consider.

6.5.1 Policies

- Require sidewalks on both sides of all thoroughfares, collectors, and residential roads within walking distance of schools, shopping centers, or other destinations. All other small residential roads can be examined on a case-by-case basis.
- Continue to require sidewalks be a minimum of five feet in width with a buffer between curb and sidewalk. Multiuse, paved, greenway trails should be a minimum of ten feet in width.
- Accommodate pedestrians with all new roadway development, including bridges, interchanges, and underpasses.
- Coordinate planning efforts with surrounding jurisdictions to provide regional sidewalk and trail connectivity.
- •Fill gaps in the existing sidewalk network.
- •Improve all crosswalks considering the full range of design treatments shown in Chapter 5 Design Guidelines.
- •Design streetscapes with safety, comfort, and aesthetics in mind.

- •Promote parking and development policies that encourage safe pedestrian access to multiple destinations and land uses within Town.
- •Require developers to install sidewalks within developments as immediate infrastructure and to provide connections that link to nearby trip attractors and subdivisions.
- •Develop adequate maintenance program to keep facilities safe, repairing facilities when needed, removing obstacles, and replacing damaged ancillary facilities such as signage.

6.5.2 Programs

- •Get involved with the North Carolina Safe Routes to School program.
- •Incorporate pedestrian safety instruction into local school programs.
- •Hold a Pedestrian/Bicycle Day to teach families about safety.
- •Publish materials such as a pedestrian safety guide, walking guide with suggested walking routes and safety tips, information on Town website, information through local television.
- •Establish encouragement programs such as Mileage Clubs, Walking School Buses, clean up walks, nature walks, etc.
- •Promote walking-for-health programs with local schools, businesses, and recreation centers.
- •Celebrate National Trails Day with an annual event.
- •Provide effective law enforcement and teaching about pedestrian laws by local police.

Footnotes:

¹NCDOT's Bicycling & Walking in North Carolina, a Critical Part of the Transportation System (adopted by the Board of Transportation on September 8, 2000).

http://www.ncdot.org/transit/bicycle/laws/laws_resolution.html

- ² Charlotte-Mecklenburg Planning Commission. Annexation
- Frequently Asked Questions.

Retrieved on 11/30/05 from:

www.charmeck.org/Departments/Planning/Annexation/Annexation+FAQ.htm

³ Town of Fayetteville. Often Asked Smart Growth Questions and Corresponding Answers. Retrieved on 11/30/05 from: http://www.Townoffayetteville.org/sgn/faq.htm

References:

Guide for the Planning, Design, and Operation of Pedestrian Facilities. American Association of State Highway and Transportation Officials (AASHTO). July 2004.

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RECOMMENDATIONS

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